**Group 1**

If y(x) = 2x2-3x+5, find y(g), y(9m), y(9x), y(4-3), y(x-4)

If h(t)=-9.8t2+4.9t, find h(0). What would h(0) represent on the graph?

If h(t)=7t+5t2, find h(-1), h(2), h(2-s), h(3x2)

**Group 2**

If f={(1,5), (3,7), (4,9),(5,8)}, what is f(1)? f(4)?

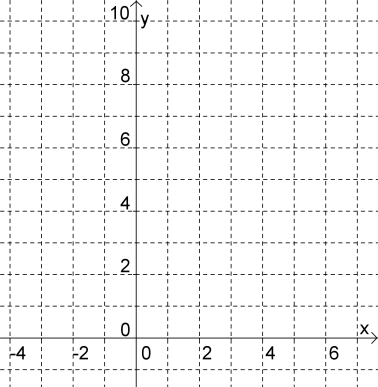
If f(x)=x2+4x+4, what is f(4)? When does f(x)=0?

If

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x | 0 | 1 | 2 | 3 | 4 | 5 |
| f(x) | 12 | 2 | 4 | 6 | 8 | 9 |

What is f(4)? f(1)?

Are x = 3 and x = -4 the solutions to the equation ? Explain how you know.



**Group 3**

For the function ,

1. find the zeros
2. find the y-intercept
3. find the coordinates of the vertex
4. sketch the graph

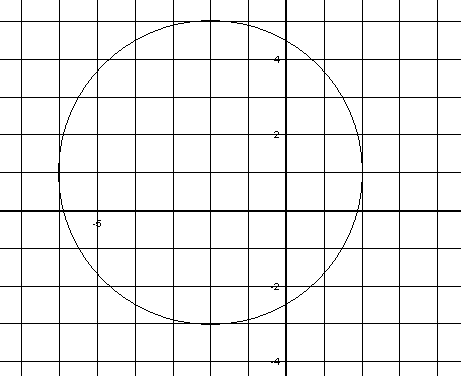
Use desmos to verify

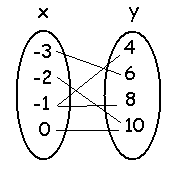
State the equation of the axis of symmetry of the quadratic function defined by .

**Group 4**

Willie Coyote has strapped the roadrunner to a rocket and launched it upward with an initial velocity of 22 m/s. The height of the rocket, *h*, in metres, can be modeled by , where *t* is the elapsed time in seconds. What is the maximum height the roadrunner and the rocket reaches?

Use desmos to verify

****Are these functions? Explain.



**Group 5**

Expand and simplify the following:

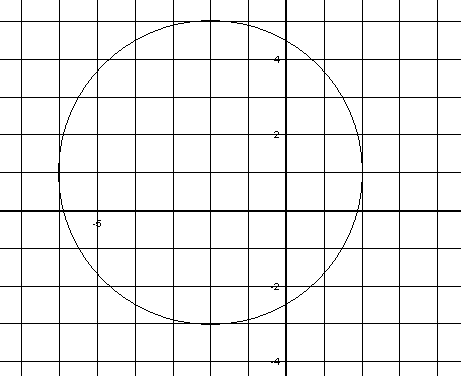
a)  b) 

Factor fully

a) 

b) 

c) 

d) 

e) 

Create a factor flow chart